

PROJECT DESCRIPTION

GENERAL

THIS PROJECT INVOLVES INSTALLING PEDESTRIAN FACILITIES FOR THE SOUTH, EAST, AND WEST LEGS OF THE INTERSECTION. PEDESTRIAN SIGNAL HEADS AND SIGNS WILL BE INSTALLED FOR THE EAST AND WEST LEGS. THE EAST AND WEST LEG PEDESTRIAN CROSSINGS WILL RUN CONCURRENT WITH THE THROUGH MOVEMENTS ON MD 202. PEDESTRIAN SIGNAL HEADS, PUSH BUTTONS AND SIGNS WILL BE INSTALLED FOR THE SOUTH LEG. AN ALTERNATIVE PHASE WILL BE PROVIDED FOR THE SOUTH LEG PEDESTRIAN CROSSING. AS A RESULT OF GEOMETRIC MODIFICATIONS TO ALL OF THE EXISTING CHANNELIZATION ISLANDS, VIDEO DETECTION WILL REPLACE PRESENCE DETECTION FOR NORTHBOUND LEFT TURNS AND THE EASTBOUND MOVEMENT. MD 202 IS ASSUMED TO RUN IN A NORTH-SOUTH DIRECTION.

INTERSECTION OPERATION

THE INTERSECTION OPERATES IN A NEMA SEVEN-PHASE, FULL-TRAFFIC-ACTUATED MODE WITH EXCLUSIVE LEFT-TURN PHASING FOR NORTH- AND SOUTHBOUND TRAFFIC. SIDE STREET SPLIT PHASES WILL REMAIN. AN ALTERNATIVE PEDESTRIAN PHASE IS PROVIDED ACROSS THE SOUTH LEG OF MD 202. THE SIGNAL IS INTERCONNECTED TO ADJACENT SIGNALS TO THE NORTH, SOUTH, AND EAST OF THE INTERSECTION.

CONTROLLER REQUIREMENTS

THE EXISTING BASE MOUNTED CONTROLLER, LOOP DETECTOR AMPLIFIERS, AND ASSOCIATED HARNESSSES WILL REMAIN. THE SHA SIGNAL SHOP WILL INSTALL THE NEW VIDEO INTERFACE WITHIN THE EXISTING CABINET.

THE CONTACT PERSONS FOR DISTRICT #3 ARE AS FOLLOWS:

Mr. Majib Shakib
Assistant District Engineer - Traffic
Phone: 301-513-7358

Mr. Augie Reblish
Assistant District Engineer - Utility
Phone: 301-513-7350

Mr. Wayne Mowdy
Assistant District Engineer - Maintenance
Phone: 301-513-7304

Mr. Richard L. Daff Sr.
Chief, Traffic Operations Division
Phone: 410-787-7630

The Power Company Representative is:
Potomac Electric Power Company
Eliza Hemingway
4061 Powder Mill Road
Suite 600
Calverton, Maryland 20705
Phone: 301-931-2880

EQUIPMENT LIST 'A'

EQUIPMENT TO BE FURNISHED BY THE SHA.

| ITEM NO | QUANTITY | DESCRIPTION |
|---------|----------|---|
| 9086 | 1 EA | [UPDATED] VIDEO DETECTION INTERFACE EQUIPMENT: 1-4 CAMERAS |
| 9570 | 49 SF | [UPDATED] SHEET ALUMINUM GROUND MOUNTED SIGN: 4 EACH - W11-2 (30 IN. X 30 IN.) (FLOURESCENT YELLOW) 4 EACH - W13-4 (36 IN. X 24 IN.) (FLOURESCENT YELLOW) |

EQUIPMENT LIST 'B'

EQUIPMENT TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR.

| ITEM NO | QUANTITY | DESCRIPTION |
|---------|----------------------------|--|
| 1001 | 2 EA | MAINTENANCE OF TRAFFIC |
| 5003 | 240 LF | REMOVAL OF EXISTING PERMANENT PAVEMENT LINE MARKINGS - ANY WIDTH |
| 5005 | 1000 1880 LF | 12 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS |
| 5006 | 100 LF | 24 INCH HEAT APPLIED WHITE PERMANENT PREFORMED THERMOPLASTIC PAVEMENT MARKINGS |
| 8002 | 12 EA | 12 INCH PEDESTRIAN SIGNAL HEAD SECTION |
| 8008 | 1 EA | CONTROL CABLE, 200 FOOT, VIDEO DETECTION |
| 8009 | 1 EA | CONTROL CABLE, 300 FOOT, VIDEO DETECTION |
| 8019 | 1 EA | REMOVE AND DISPOSE OF MATERIALS AND EQUIPMENT PER ASSIGNMENT |
| 8028 | 72 LF | WOOD SIGN SUPPORTS 4 INCH X 4 INCH |
| 8030 | 25 LF | NO. 6 AWG STRANDED BARE COPPER GROUND WIRE |
| 8036 | 85 LF | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - BORED |
| 8039 | 15 LF | 3 INCH SCHEDULE 80 RIGID PVC CONDUIT - TRENCHED |
| 8053 | 1 EA | FURNISH AND INSTALL ELECTRICAL HANDHOLE |
| 8055 | 49 SF | INSTALL GROUND MOUNTED SIGN |
| 8057 | 2 EA | VIDEO DETECTION CAMERA |
| 8070 | 1 EA | 250 WATT HIGH PRESSURE SODIUM LAMP AND LUMINAIRE |
| 8074 | 1 EA | GROUND ROD - 3/4 INCH DIAMETER X 10 FOOT LENGTH |
| 8081 | 3,800 LF | ELECTRICAL CABLE - 2 CONDUCTOR (ALUMINUM SHIELDED) |
| 8082 | 365 LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 14 AWG) |
| 8084 | 950 LF | ELECTRICAL CABLE - 5 CONDUCTOR (NO. 14 AWG) |
| 8086 | 125 LF | ELECTRICAL CABLE - 2 CONDUCTOR (NO. 12 AWG) TC |
| 8089 | 2 EA | PUSH BUTTON AND SIGN |
| 8090 | 1 EA | 15 FOOT LIGHTING ARM ON SIGNAL STRUCTURE |

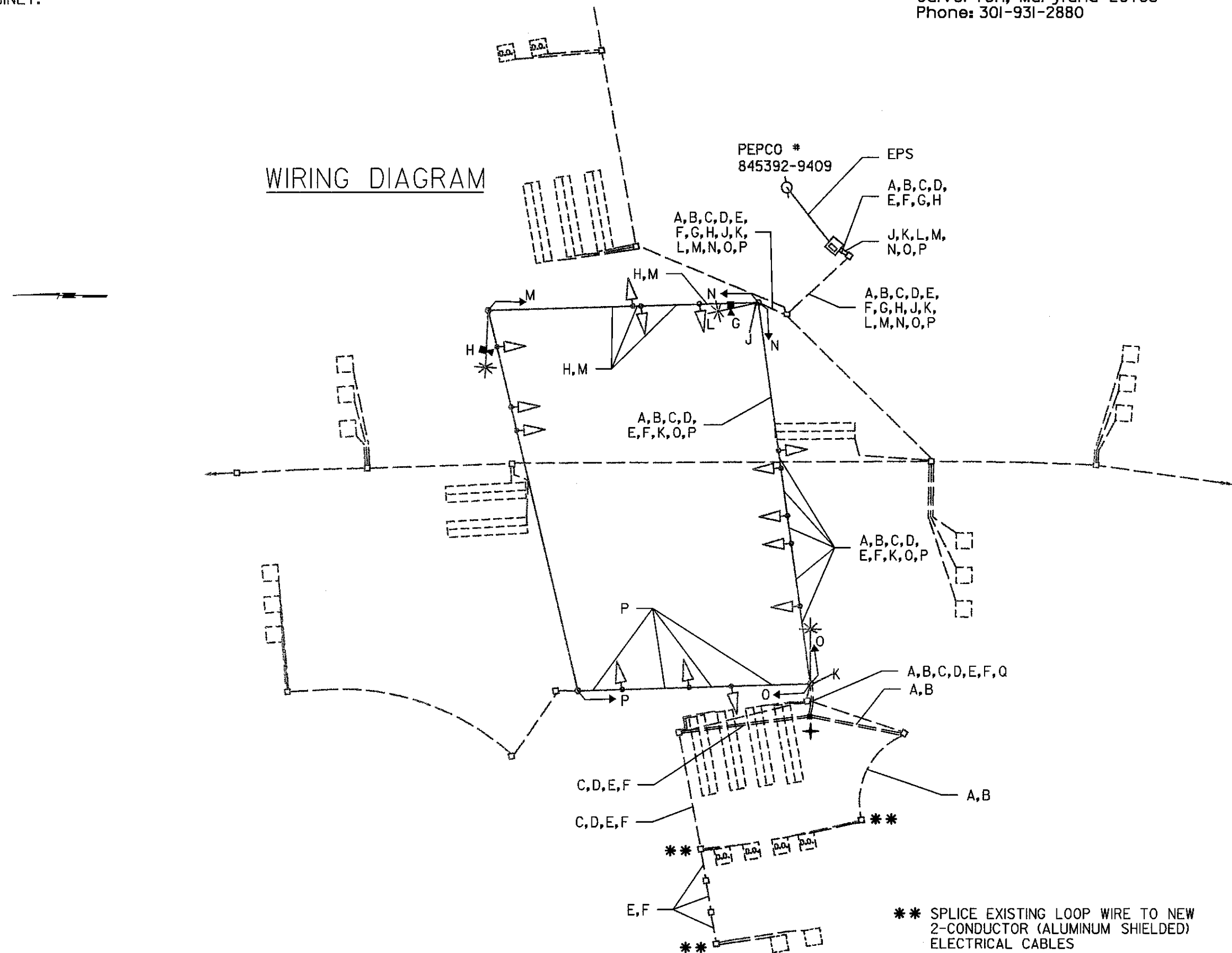
EQUIPMENT LIST 'C'

EQUIPMENT TO BE REMOVED AND RETURNED TO SHA.

ITEM NO QUANTITY DESCRIPTION

ALL REMOVED MATERIALS ARE TO BECOME THE PROPERTY OF THE CONTRACTOR.

WIRING DIAGRAM



- A B C D E F
- G - 2-CONDUCTOR ELECTRICAL CABLE (ALUMINUM SHIELDED)
- H - CONTROL CABLE, 200 FOOT, VIDEO DETECTION
- I - CONTROL CABLE, 300 FOOT, VIDEO DETECTION
- J K - 2-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- L - 2-CONDUCTOR ELECTRICAL CABLE (NO. 12 AWG) TC
- M N O P
- Q - 5-CONDUCTOR ELECTRICAL CABLE (NO. 14 AWG)
- R - NO. 6 AWG STRANDED BARE COPPER WIRE
- S - 3/4 IN. X 10 FT. GROUND ROD
- EPS - EXISTING POWER SOURCE

PHASE CHART

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 | 15 | 16 | 17 | 18 | 19 | 20 | |
|----------------------|-------|-------|------|------|-------|-------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|--|
| PHASE 1 + 5 | ←G | ←G | R | R | ←G | ←G | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 1 + 5 CHANGE | | | | | | | | | | | | | | | | | | | | | |
| PHASE 1 + 6 | ←G | ←G | G | G | ←R | ←R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 1 + 6 CHANGE | ←Y | ←Y | Y | Y | ←R | ←R | R | R | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 2 + 5 | ←R | ←R | R | R | ←G | ←G | G | G | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 2 + 5 CHANGE | ←R | ←R | R | R | ←Y | ←Y | Y | Y | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 2 + 6 | ←R | ←R | G | G | ←R | ←R | G | G | R | R | R | R | R | R | W | W | W | W | DW | DW | |
| PEDESTRIAN CLEARANCE | ←R | ←R | G | G | ←R | ←R | G | G | R | R | R | R | R | R | F/DW | F/DW | F/DW | F/DW | DW | DW | |
| PHASE 2 + 6 CHANGE | ←R | ←R | Y | Y | ←R | ←R | Y | Y | R | R | R | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 3 | ←R | ←R | R | R | ←R | ←R | R | R | ←G | ←G | G | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 3 CHANGE | ←R | ←R | R | R | ←R | ←R | R | R | Y | Y | Y | R | R | R | DW | DW | DW | DW | DW | DW | |
| PHASE 4 | ←R | ←R | R | R | ←R | ←R | R | R | R | R | R | ←G | ←G | G | DW | DW | DW | DW | DW | DW | |
| PHASE 4 CHANGE | ←R | ←R | R | R | ←R | ←R | R | R | R | R | R | Y | Y | Y | DW | DW | DW | DW | DW | DW | |
| PHASE 4 ALT | ←R | ←R | R | R | ←R | ←R | R | R | R | R | R | ←G | ←G | G | DW | DW | DW | DW | W | W | |
| PED CLEARANCE | ←R | ←R | R | R | ←R | ←R | R | R | R | R | R | ←G | ←G | G | DW | DW | DW | DW | F/DW | F/DW | |
| PHASE 4 ALT CHANGE | ←R | ←R | R | R | ←R | ←R | R | R | R | R | R | Y | Y | Y | DW | DW | DW | DW | DW | DW | |
| FLASHING OPERATION | FL/RA | FL/RA | FL/Y | FL/Y | FL/RA | FL/RA | FL/Y | FL/Y | FL/R | FL/R | FL/R | FL/R | FL/R | FL/R | DARK | DARK | DARK | DARK | DARK | DARK | |

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SHA # PG617 A56/B56 TOD # AT 356-13

MARYLAND DOT - STATE HIGHWAY ADMINISTRATION
Office of Traffic & Safety
TRAFFIC ENGINEERING DESIGN DIVISION
MD 202 AND LOTTSFORD ROAD
GENERAL INFORMATION

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|-----------------------|-------------------------|--------------|---------------------|
| DRAWN BY: R. KIPP | F.A.P. NO. | TS NO. | SHEET NO. 2 OF 2 |
| CHECKED BY: B. BIDDLE | S.H.A. NO. | TS-2548C | |
| SCALE: NONE | COUNTY: PRINCE GEORGE'S | T.I.M.S. NO. | |
| DATE: AUGUST 2004 | LOG MILE: 16020208.78 | GI82 | |